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MULTIMEDIA INTERIM INSPECTION REPORT

UNITED STATES STEEL CORPORATION – GARY WORKS
GARY, INDIANA

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U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION V

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INTRODUCTION

At the request of the U.S. EPA, Region 5, Enforcement Compliance Assistance Team (ECAT), the Air Enforcement and Compliance Assurance Branch (AECAB) of the Air and Radiation Division (ARD) coordinated a multimedia compliance investigation at the United States Steel Corporation – Gary Works (U.S. Steel) facility located in Gary, Indiana.

U.S. Steel owns and operates an integrated steel mill at One North Broadway, in Gary, Indiana. The facility, North America's largest integrated steel mill, is located on nearly 4,000 acres, bounded to the North by Lake Michigan and to the South by the City of Gary. The Gary-Works facility is comprised of both steelmaking operations and finishing facilities. The facility has a raw steelmaking capacity of approximately 8 million tons per year.

The USS Gary Works plant, constructed in 1906, employs about 5,200 workers and is operated 24 hours/day, 7-days per week, and 52 weeks per year. The Standard Industrial Classification (SIC) reported for the process operations performed at the facility is 3312 - Steel Works, Blast Furnaces (including Coke Ovens), and Rolling Mills.

Objective

The specific objectives of this multimedia inspection (MMI) were to evaluate compliance with:

- Air pollution control regulations under the Clean Air Act (CAA) and the Federally approved portions of the State of Indiana Air Pollution Implementation Plan
- Hazardous waste management regulations under the Resource Conservation and Recovery Act (RCRA) and rules adopted under the State of Indiana's Hazardous Waste Program
- Wastewater discharge requirements under the Clean Water Act (CWA)
- Toxic Substances Control Act (TSCA) regulations for management of polychlorinated biphenyls (PCBs)

In addition, U.S. EPA inspectors attempted to identify plant activities that could impact the environment.

Personnel from the Indiana Department of Environmental Management (IDEM) participated in the CAA, RCRA, and TSCA/PCB portions of this investigation.

Investigation Methods

The investigation of the U.S. Steel Plant included:

- Review of regulatory files
- On-site inspection of the facility, including:

- discussions with plant personnel,
- inspection of facility operations and pollution control equipment,
- and review of plant records and documents.

Background

1.) Process Overview

Coke Production Process

Metallurgical coke is manufactured on-site at the USS Gary Works facility. Coke is used at the facility's blast furnaces and sinter plant to reduce iron ore to iron. USS owns and operates four (4) coke oven batteries: two (2) six meter tall vertical flue batteries with 57 ovens each and; two (2) three meter short vertical flue batteries with 77 ovens each. The raw feedstock to the batteries, coal, is crushed along with a percentage of petroleum coke, at the facility's hammer mills (8 coal units and 1 petcoke crusher). The processed coal is then transported to the coke oven batteries and charged through ports at the top of coke ovens. The coal is heated in the ovens to approximately 2,000 degrees Fahrenheit for a period of 12 and 20 hours. Volatile gases, coke oven gases (COG), are released from the coal and directed to the facility's coke by-product recovery plant where condensable materials (i.e., tars and light oils) are removed from the COG. The COG is then directed to the facility's desulfurization facility to remove hydrogen sulfide and other organic sulfur compounds from the COG. The "purified" COG is then used as fuel at a number of the facility's combustion units. The COG is also combusted along with natural gas to provide heat at the coke oven batteries.

Once the coking process has completed, doors along the side of the ovens are opened, and the coke is pushed from the ovens into a quench car. The coke is then transported to one of five (5) a quench towers, where water is sprayed onto the coke in order to cool it and prevent it from re-igniting.

Sinter Production

The Gary Works facility operates one Sinter plant that has three (3) Sinter Strands. Sinter is an agglomerated material produced by the heating of fine-sized raw materials (i.e., iron ore, limestone, flue dust, coke, etc.) that is subsequently processed for use at blast furnaces to produce iron. The raw materials are conveyed into a burner hood by a traveling grate system called a Sinter Strand. The sinter is ignited at the burner and the material is melted to an agglomeration that is cooled, crushed, and screened for use at the blast furnaces.

Iron Production

Iron is produced by exposing iron bearing materials (i.e., iron ore, sinter, etc.) to hot gas in a refractory-lined unit called a blast furnace. The raw materials, consisting of iron bearing materials, flux (i.e., limestone), and coke (fuel) are charged at the top of the blast furnace and react to produce molten iron and slag at the base of the furnace. Gases produced in the blast furnace are collected and

used as fuel at various on-site processes. There are four (4) blast furnaces at the USS Gary Works facility (two 200 ton/hr, one 183 ton/hr, and one 450 ton/hr furnaces).

The molten iron and slag are periodically removed (cast) from the blast furnace by tapping a hole at the base of the furnace hearth and allowing it to drain into runners that lead to transport ladles. The slag is directed via separate runners to a slag pit near the casthouse. There are four (4) slag pits (one per blast furnace) at the Gary Works facility.

Steelmaking Process

A significant portion of the sulfur contained in the molten iron is removed by adding reagents. The subsequent reaction produces slag that floats to the top of the molten iron and is skimmed off. The molten iron is then charged to a Basic Oxygen Process (BOP) furnace where it is injected (or lanced) with high-purity oxygen. The oxygen exothermically reacts with impurities in the iron to produce slag. When the process is complete, the furnace is tapped and the slag is removed. The Gary Works facility has four (4) hot metal transfer and desulfurization stations and six (6) BOP furnace vessels rated at 250 tons per hour each.

The steel is then finished as hot rolled, cold rolled, and galvanized sheet products for the automotive metal building components, construction, and appliance market

2.) Media-Specific Information

CAA

The U.S. Steel facility is located in Lake County, Indiana which is designated as "non-attainment" for both the 8-hour average ozone standard and the $PM_{2.5}$ standard. Lake County is designated as "attainment" or "unclassifiable" for the remaining criteria pollutants.

A Part 70 Operating Permit (Title V permit) was issued to U.S. Steel by the Indiana Department of Environmental Management (IDEM), Office of Air Quality on August 16, 2006. This operating permit contains the conditions regulating the permitted sources of air emissions at the U.S. Steel Gary, Indiana integrated steel mill. The significant emission sources contained in this permit include four (4) blast furnaces, three (3) top-down Basic Oxygen Process (BOP) steelmaking furnaces; three (3) bottom-blown (Q-BOP) steelmaking furnaces; a vacuum degasser four (4) continuous casting lines; four (4) coke oven batteries; two (2) coke battery precarbonization facilities; one (1) coal crusher, one (1) petcoke crusher; a coke by-products recovery plant; a coke oven gas (COG) desulfurization facility; eleven (11) coke plant boilers; a sinter plant; two (2) continuous pickle lines; two (2) sheet mills; two (2) annealing lines; five (5) annealing furnaces; three (3) boiler house boilers; and six (6) turboblower boiler house boilers. A comprehensive listing of the permitted emission units can be found in the facility's Title V permit.

Potentially applicable federal air emissions control regulations pertaining to emission sources at the facility include, but may not be limited to:

- 40 CFR Part 60 Subparts A (NSPS General Provisions);

- 40 CFR Part 60 Subpart Y (Opacity Limitations Coal Preparation Plant);
- 40 CFR Part 63 Subpart A (General Provisions);
- 40 CFR Part 63 Subpart L (NESHAP for Coke Oven Batteries);
- 40 CFR Part 63 Subpart CCCCC (NESHAP for Coke Ovens: Pushing, Quenching, and Battery Stacks);
- 40 CFR Part 61 Subpart A (General Provisions Relating to NESHAP);
- 40 CFR Part 61 Subpart L (National Emission Standard for Benzene Emissions from Coke By-product Recovery Plants);
- 40 CFR Part 61 Subpart V (National Emission Standard for Equipment Leaks (Fugitive Emission Sources));
- 40 CFR Part 61 Subpart FF (National Emission Standard for Benzene Waste Operations);
- 40 CFR Part 63 Subpart DDDDD (NESHAP for Industrial, Commercial, Institutional Boilers and Process Heaters);
- 40 CFR Part 60 Subpart Db (NSPS for Industrial-Commercial-Institutional Steam Generating Units);
- 40 CFR Part 60 Subpart Dc (NSPS for Small Industrial-Commercial-Institutional Steam Generating Units);
- 40 CFR Part 60 Subpart D (NSPS for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971);
- 40 CFR Part 63 Subpart FFFFF (NESHAP for Integrated Iron and Steel Manufacturing Facilities);
- 40 CFR Part 63 Subpart CCC (NESHAP for Steel Pickling – HCl Process Facilities and Hydrochloric Acid Regeneration Plants).

IDEM routinely conducts onsite CAA related inspections at the USS Gary Works plant. The most recent CAA inspections conducted at the plant were on August 22, 2006, August 3, 2006, March 14, 2003, July 26, 2006, and July 6, 2006. There have been three (3) formal enforcement actions taken by IDEM within the last 5 years. Penalties for these violations totaled $571,400. As of March 10, 2007 the facilities is listed on the High Priority Violators list for twelve (12) quarters of "unaddressed" violations (i.e., no formal enforcement actions have been initiated).

The most recent U.S. EPA on-site compliance inspections were conducted on October 2, 2002 and June 4, 2002. A Notice of Violation (NOV) was issued to the facility on March 6, 2003 regarding alleged violations at the facility's Hot Metal Desulfurization facilities. A Finding of Violation (FOV) was issued to the facility on July 18, 2002 relative to alleged violations of performance testing standards at the facility's coke oven batteries.

RCRA - Hazardous Waste

The USS Gary Works plant is a large quantity generator with a RCRA hazardous waste ID number of IND005444062.

The 2005 TRI database indicates that the US Steel Gary Works facility generated, managed, and shipped, 42,576 tons of hazardous waste. Of this quantity of waste, 327 tons were transferred off-site for further waste management.

The U.S. EPA has conducted no on-site RCRA compliance evaluation inspections in the past 5 years.

No formal RCRA enforcement actions have been taken by U.S. EPA within the last five (5) years.

IDEM has conducted eight (8) on-site RCRA compliance evaluations within the past 5 years. The most recent on-site inspections occurred on December 9, 2006, September 7, 2006, December 15, 2005, and September 14, 2005.

The facility is not currently on the High Priority Violators list for RCRA. There have been two (2) formal RCRA enforcement actions taken by IDEM within the past 5 years. IDEM issued a final Compliance Order on 12/12/2003 with a penalty assessed at $9,400. IDEM has issued five (5) written informal violations to the USS Gary Works facility within the past five (5) years.

CWA

The USS Gary Works facility has a large number of process and cooling water outfalls which discharge to Lake Michigan, the Grand Calumet River, and Stockton Pond. These discharges are limited by 40 CFR Parts 420 and 433, IDEM ambient water quality standards, and a Consent Decree resulting from a CWA enforcement action.

The U.S. EPA has conducted one reconnaissance (March 27, 2003) and two non-sampling CWA compliance evaluations (July, 23, 2004 and June 2, 2005) for the USS Gary Works plant during the last 5 years.

IDEM has conducted nine (9) CWA reconnaissances and three (3) non-sampling CWA compliance evaluations for USS Gary Works within the past 5 years. The most recent reconnaissance was conducted on December 2, 2005.

The facility is not currently on the High Priority Violators list for CWA. There have been no formal CWA/NPDES enforcement actions taken by IDEM or U.S. EPA within the past 5 years.

3.) Accidental Releases

A review of the National Response Center (NRC) data base shows that there have been 45 reported releases for USS Gary Works over the past five (5) years. Releases during the past two years involved the following:

Date	Media	Description of Event
8/7/2006	Water	Hydraulic fluid discharged out of outfall O35 into Lake Michigan due to a broken hydraulic line on No. 4 Blast Furnace
5/21/2006	Land	Release of approximately 2 gallons of KO62 spent pickle liquor from a tanker truck due to a valve that was left partially open.
4/26/2006	Air	Release of coke of gas due to a gas booster trip.
12/19/2005	Air	Release of coke oven gas from center flare stack on Battery No. 2.
10/31/2005	Land	A Pipeline attached to a storage tank ruptured and spilled about 500 gallons of tar.
7/19/2005	Land	A clog on a drum screen caused a release of materials (ammonia, benzene, cyanide, flushing liquor, phenol) into the secondary containment and then onto the ground.
6/28/2005	Water	Release of hydraulic oil from the Hot Strip Mill to outfall 039 into Lake Michigan due to unknown cause.
6/10/2005	Air	Release of raw coke oven gas due to operator error. COG released to the flare stack.
6/8/2005	Land	Release of about 2 gallons of transformer oil (PCB) from pad mounted transformer due to equipment failure (possible leak).
5/9/2005	Land	Release about 110 gallons of flushing tar due to a failure in a pipe.
5/5/2005	Water	Oil coming out of an outfall from an unknown source. Released to Grand Calumet River.

SUMMARY OF FINDINGS

The following preliminary findings were identified during the multimedia investigation of the U.S. Steel – Gary Works facility. These preliminary findings are subject to change based upon further regulatory review and information received from the facility. The findings are presented as observed areas of potential concern. Potential pollution prevention opportunities are also identified.

CLEAN AIR ACT

The Clean Air Act inspection consisted of an inspection of the various process areas at the plant, air emission sources, air pollution control equipment, and a review of documents relating to the various air emission sources.

Observed Areas of Potential Concern

- Visible Emission exceedance from interplant transfer of product, exceeding 0% opacity, in violation of IAC 6.8-10-3-6. EPA witnessed several smoking hot iron transfer railcars (bottle cars).

- Visible emission exceedance at #8 slag pit, in violation of IAC 6.8-10-3-4. EPA took visible emission readings and the opacity exceeded 10% on a 3 minute average.

- Failure to control emissions from blast furnace #14, #3 tap hole while tapping, in violation of the Title V permit. The permit requires operation of the control system at all times the casthouse is in operation. US Steel removed suction from #3 tap hole when it opened #2 tap hole. We believe this to be normal practice when more than one hole is tapped.

- Failure to control emissions from blast furnace #14, iron dam emissions were not captured by a control system, in violation of the Title V permit that requires operation of the control system at all times the casthouse is in operation.

- Failure to operated the flare and have a flame present when the blast furnaces are in operation, in violation of the Title V permit. The flame periodically goes out and CO from the blast furnace is not combusted as it must be.

- Visible emissions exceedance from slag skimming at the QBOP shop. This operation resulted in visible emissions over 0% out of the QBOP building, in violation of IAC 6.8-10-3-7(D).

- IMS opacity violations during steel slag ladle dumping. This operation resulted in emissions over 0% opacity out of the building, in violation of IAC 6.8-10-3-7(D).

- Failure to list as an emission source blast furnace relief valves. These valves open often enough, and with enough emission to be considered an "emission source", not a malfunction. This would be a violation of Indiana PTI and possibly of SIP particulate control regulations.

- Emissions from #4, 6, and 8 blast furnace iron spouts that escape out of the building that surrounds the bottle car and spout. These could be violations of IAC 6.8-10-3-7(D), which requires 0% opacity from buildings.

- There were many (over 20 for the last 3 quarters) violations of opacity and other standards reported in Title V quarterly reports. The question is which agency will lead the enforcement for them.

CAA observations from the No. 1 BOP Shop, No. 2 Q-BOP Shop, Hot Rolling Mill, Continuous Pickling Line, Sheet Products Division and Tin Mill Operations.

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Indiana State Implementation Plan (SIP), 326 IAC 6.8-3-4
(Particulate Matter Limitations for Lake County for U.S. Steel – Gary Works)

1. Opacity Exceedances at Gas Cleaning Unit

Visible emission readings were conducted on May 18, 2007 in accordance with Method 9 of 40 C.F.R. Part 60, Appendix A, at the No. 1 BOP Shop and No. 2 Q-BOP Shop. Visible emission readings at the No. 1 BOP Shop did not meet the requirements of 326 IAC 6.8-3-4, as found in the Indiana SIP:

Source	*Opacity*
No. 1 Basic Oxygen Process Gas Cleaning (2 Units)	*20%, 6-minute average*

From 10:14 to 10:20 AM, the six-minute average opacity reading at the north gas cleaner stack of No. 1 BOP Shop was 32.5%, exceeding the 20% opacity standard.

2. Opacity Exceedances at Roof Monitors

Copies of several Incidence Reports were obtained from U.S. Steel at the time of the inspection. Opacity exceedances were reported in these documents. Opacity readings did not meet the requirements of 326 IAC 6.8-3-4, as found in the Indiana SIP:

Source	*Opacity*
No. 1 Basic Oxygen Furnace Roof Monitor	*20%, 3-minute average*
No. 2 Q-BOP Roof Monitor	*20%, 3-minute average*

In the Incidence Reports obtained, the following opacity exeedances were reported:

No. 1 BOP Shop

Date	Time of Exceedances	3-Minute Average Opacity Reading
12/27/2006	11:28 – 11:30 A.M.	21.67 %
02/12/2007	8:24 – 8:27 A.M.	22.08 %
02/23/2007	11:24 – 11:27 A.M.	20.8 %

No. 2 Q-BOP Shop

Date	Time of Exceedances	3-Minute Average Opacity Reading
04/10/2007	7:59 – 8:02 A.M.	20.42 %
04/10/2007	8:02 – 8:05 A.M.	92.08%
04/10/2007	8:05 – 8:08 A.M.	45.83 %
Date	Time of Exceedances	3-Minute Average Opacity Reading
11/09/2006	12:53 – 12:55 P.M.	20.83 %
11/22/2007	11:30 – 11:33 A.M.	22.06 %
01/15/2007	9:01 – 9:04 A.M.	21.66 %

Indiana State Implementation Plan (SIP), 326 IAC 6.8-1-2(a)
(*Particulate emission limitations; fuel combustion steam generators, asphalt concrete plant, grain elevators, foundries, mineral aggregate operations; modification by commissioner*)

Copies of several Incidence Reports were obtained from U.S. Steel at the time of the inspection. Particulate matter (PM) exceedances were reported in these documents. PM_{10} readings at the No. 1 BOP Shop and No. 2 Q-BOP Shop roof monitors did not meet the requirements of 326 IAC 6.8-1-2(a), as found in the Indiana SIP:

Sec. 2. (a) Particulate matter emissions from facilities constructed after applicable dates in subsections (c) and (d) or not limited by subsection (b), (e), (f), or (g) shall not exceed seven-hundredths (0.07) gram per dry standard cubic meter (g/dscm) (three-hundredths (0.03) grain per dry standard cubic foot (dscf)).

In the Incidence Reports obtained, PM_{10} exeedances were reported for No. 1 BOP Shop on 12/27/2006, 02/12/2007, 02/23/2007 and three times on 04/10/2007. PM_{10} exeedances were reported for No. 2 Q-BOP Shop on 11/09/2006, 11/22/2007 and 01/15/2007. The extent of emissions above the PM_{10} standard was not reported.

Areas of Potential Concern at the Coke Oven Plant:

- Offtake leaks
- Door leaks
- Pushing visible emissions

1. Based on the U.S. Steel's Quarterly Deviation Reports submitted in 2006 and 2007, US Steel had the following coke oven door leak exceedances at its facility:

Date	Percent Doors Leak
July 19, 2006	18.94
August 25, 2006	12.00
October 5, 2006	21.70
November 6, 2006	11.11
February 28, 2007	11.54

These exceedances are violations of coke oven door leak limits of US Steel's Title V operating permit and the Indiana SIP.

2. Based on U.S. EPA's observation of visible emissions during the pushing operations on the No. 5. coke battery, U.S. Steel had the following exceedance of the emissions limit at its facility:

Date	Time	Percent Visible Emission
May 15, 2007	9:25	21.67

This exceedance is a violation of visible emissions limit of U.S. Steel's Title V operating permit and the Indiana SIP.

3. Based on the U.S. Steel's Quarterly Deviation Reports submitted in 2006 and 2007, U.S. Steel had the following coke oven offtake leak exceedances at its facility:

Date	Percent Offtake Leak
February 8, 2006	6.12
October 17, 2006	6.38
November 9, 2006	5.97

These exceedances are violations of coke oven offtake leak limits of U.S. Steel's Title V operating permit and the Indiana SIP.

Areas of Potential Concern at the BOP Shops:

- No. 1 BOP Shop Roof Monitor Opacity Exceedances
- No. 2 QBOP Shop Roof Monitor Opacity Exceedances

4. Based on the U.S. Steel's observations of the visible particulate emissions of fugitive dust from the No. 1 BOP Shop roof monitor, US Steel had the following exceedances of the emission limits at its facility:

Date	Time	Three-Minute Average Percent Opacity
December 27, 2006	1128 – 1131	21.67
February 12, 2007	0824 – 0827	22.08
February 23, 2007	1124 – 1127	20.08
April 10, 2007	0759 – 0802	20.42
April 10, 2007	0802 – 0805	92.08
April 10, 2007	0805 – 0808	45.83
April 10, 2007	0805 – 0808	45.83

These exceedances are violations of visible particulate emissions limits of U.S. Steel's Title V operating permit and the Indiana SIP.

5. Based on the U.S. Steel's observations of the visible particulate emissions of fugitive dust from the No. 2 QBOP Shop roof monitor, U.S. Steel had the following exceedances of the emission limits at its facility:

Date	Time	Three-Minute Average Percent Opacity
November 9, 2006	1253 - 1156	20.83
November 22, 2006	1130 - 1133	22.08
January 15, 2007	0901 – 0904	21.66

These exceedances are violations of visible particulate emissions limits of U.S. Steel's Title V operating permit and the Indiana SIP.

On Friday, May 18, 2007, U.S. EPA reviewed documents that were requested on Tuesday, May 15, 2007. These documents included MSD sheets for the polymers used in U.S. Steels' wastewater treatment leak logs prepared by TEAM and USS from 2002 to 2006, and LDAR Field Reports from TEAM from 2002 to 2006. After reviewing the Leak Logs that were prepared by USS in 2005 and 2006, it was observed that the data provided on Friday had additional information added from when U.S. EPA had observed the data on Tuesday, May 15, 2007. After observing these changes, U.S. EPA asked U.S. Steel to provide any maintenance records to support these leak logs. This data has not yet been received by U.S. EPA.

Observed Areas of Potential Concern

- The regulations under 40 C.F.R. Part 61 Subpart V require a facility to make a first attempt to repair a leak within 5 days. If proper documentation is not provided to support the updates made to the leak logs, there could be a potential violation under §61.242-7.

RESOURCE CONSERVATION AND RECOVERY ACT - HAZARDOUS WASTE

The purpose of the CEI was to evaluate U.S. Steel's compliance with certain provisions of the Resource Conservation and Recovery Act (RCRA), specifically, those regulations related to the management and disposal of hazardous waste. U.S. EPA was assisted on May 16, 2007 by Scott Ormsby and John Howard from the Indiana Department of Environmental Management (IDEM).

U.S. Steel representatives were notified during the inspection closing conference that there were two potential areas of concern:

1. **Contingency Plan**- requires an emergency equipment list that was not available in the plan

2. **Hazardous Waste Determinations**- there was no hazardous waste determination for a parts washer waste solvent.

TOXIC SUBSTANCE CONTROL ACT (TSCA)/ POLYCHLORINATED BIPHENYLS (PCB)

The inspection was conducted to document the facility's handling, storage, and disposal practices and to determine its compliance with the PCB Regulations, 40 C.F.R. Part 761, as published in the Federal Register of May 31, 1979, and as amended.

IDEM staff conducted the PCB portion of a multi-media inspection on May 14-16 and May 21-22, 2007. IDEM staff observed approximately 41 PCB transformers during the site visit. U.S. Steel documents indicated that there are approximately 517 large capacitors in use at the facility. Mr. Kubiszak indicated that all of the capacitors and capacitor banks are located inside cabinets and individual capacitors are not visible for inspection without de-energizing the equipment.

According to U.S. Steel personnel and inspection records at the site, U.S. Steel considered nine (9) of the transformers as leaking PCB equipment at the outset of the inspection. Based on observations by

IDEM and U.S. Steel personnel, three (3) additional units (Transformer Nos. SH-11, SH-48 and SH-49) were added to the leaking PCB equipment list on May 16, 2007. At the conclusion of the on-site portion of the inspection, U.S. Steel considered twelve (12) transformers as leaking PCB equipment.

IDEM staff collected samples at twelve (12) locations during the site visit. Wipe samples were collected from of eleven (11) of the locations and a soil/sludge sample was collected from the twelfth site. PCBs were detected at ten (10) of the sample locations. PCBs were detected on the containment floor of the main PCB Storage Area (18-2), Substation Nos. 7 and 10, and at Transformers SH-9, SH-11, SH-12, and SH-49. Based on visual observations during the site visit, it might be beneficial to require U.S. Steel to conduct a facility wide PCB investigation to determine the extent of PCB contamination from releases at other PCB equipment and articles.

U.S. Steel generates large quantities of used oil from various operations at the site including manufacturing and maintenance. U.S. Steel conducted a PCB sampling and analysis program for their used oil generation during 2006. However, the detection limits for the samples ranged from 2 to 20 mg/kg. Therefore, the reported analytical results ranged from 1 to 10 mg/kg. Based on the relatively high detection limits, the reported results may not reflect the actual concentrations of PCBs in the used oil generated at the facility. Further sampling and analysis, with lower detection limits may be necessary to evaluate PCB concentrations in used oil at the site.

PCB investigation and remediation activities at the No. 1 BOP Rectifier Substation indicate that PCBs are still present after remedial activities. Based on the information provided it is not clear whether the remediation has been completed in accordance with 40 CFR 761. In addition, U.S. Steel submitted a copy of a proposal for decontamination of the 18-2 PCB Storage Area. The

proposal was dated July 2, 2004. No information was provided by U.S. Steel to indicate whether the proposed work was completed.

CLEAN WATER ACT